

VITAMIN and MINERAL Supplementation

Dietary supplements may be treated as medical expenses

In new legislation introduced by Senators Tom Harkin (D-IA) and Orrin Hatch (R-UT), the new "Dietary Supplement Tax Fairness Act of 2001" (Bill S.1330) would ensure that vitamins, minerals, herbs, and specialty supplements will be covered by health insurance plans. Senator Harkin said that giving dietary supplements parity with prescription drugs under the US tax code would advance sound healthcare policy. The first comprehensive national survey on the use of dietary supplements, the Dietary Supplement Barometer Survey, found that the majority of Americans believes in supplements and takes them on a regular basis. *PRNewswire*, September 4, 2001.

What are vitamins?

You need vitamins for normal digestion, mental alertness and resistance to infection. They enable your body to process proteins, carbohydrates and fats. Certain vitamins help you also to produce blood cells, hormones, genetic material and chemicals of your nervous system. Unlike carbohydrates, proteins and fats, vitamins and minerals don't provide fuel (calories). However, they help your body release and use calories from food.

There are 14 vitamins, which fall into two categories:

- The fat-soluble vitamins are vitamins A, D, E and K. They're stored in your body's fat. Because they're stored, excess fat-soluble vitamins can accumulate in your body to toxic levels. Your body is especially sensitive to too much vitamin A and vitamin D.
- The water-soluble vitamins are vitamin C, choline, biotin and the seven B vitamins: thiamin (B-1), riboflavin (B-2), niacin (B-3), pantothenic acid (B-5), pyridoxine (B-6), folic acid (B-9) and cobalamin (B-12). They're stored to a lesser extent than fat-soluble vitamins.

What are minerals?

Your body also needs 16 minerals. Major minerals include calcium, phosphorus, magnesium, sodium, potassium, chloride and sulfur. Calcium, phosphorus and magnesium are important in the development of bones and teeth. Sodium, potassium and chloride, known as electrolytes, are important in regulating the water and chemical balance in your body. Your body needs smaller amounts of chromium, copper, fluoride, iodine, iron, manganese, molybdenum, selenium and zinc. These are necessary for normal growth and health.

The right balance

Having the right balance of vitamins and minerals in your body is essential. Prolonged vitamin or mineral deficiencies can cause specific diseases or conditions, such as night blindness (vitamin A deficiency), pernicious anemia (vitamin B-12 deficiency) and anemia (iron deficiency). Too much of some vitamins and minerals can cause toxic reactions.

Whole foods are the best source

You can get your entire daily requirement of vitamin C by popping a pill. You can get the same amount by eating an orange. So which is better? In most cases, the orange — a whole food.

Whole foods — fruits, vegetables, grains, lean meats and dairy products — have three main benefits you can't find in a pill.

- **Whole foods are complex.** They contain a variety of the nutrients your body needs — not just one —

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giving you more bang for your nutrition buck. An orange, for example, provides vitamin C but also beta carotene, calcium and other nutrients. Similarly, a glass of milk provides you with protein, vitamin D, riboflavin, calcium, phosphorus and magnesium. If you take only calcium supplements and skip calcium-rich foods, such as dairy products, you miss all the other nutrients you need for healthy bones.

- **Whole foods provide dietary fiber.** Fiber is important for digestion and in preventing certain diseases. Soluble fiber — found in certain beans and grains and in some fruits and vegetables— and insoluble fiber — found in whole-grain breakfast cereals and in some vegetables and fruits— may help prevent heart disease, diabetes and constipation.

Whole foods contain other substances that may be important for good health Fruits and vegetables, for example, contain naturally occurring food substances called phytochemicals that might help protect you against cancer, heart disease, osteoporosis and diabetes. It's not yet known precisely what role phytochemicals play in nutrition.

Should you be Including Fish Oils in your Diet to prevent gallstones??

Medical Abstract Title:

Fish Oil (n-3) Polyunsaturated Fatty Acids Beneficially Affect Biliary Cholesterol Nucleation Time in Obese Women Losing Weight

Authors:

Méndez-Sánchez N, González V, Aguayo P, Sánchez JM, Tanimoto MA, Elizondo J, Uribe M

Source:

J Nutr. 2001;131:2300-2303.

Abstract:

It has been reported that intake of (n-3) polyunsaturated fatty acids (PUFA) reduces the risk of coronary heart disease and decreases biliary cholesterol saturation in the bile of gallstone patients. We investigated the effect of n-3 PUFA on cholesterol saturation index (CSI) and nucleation time (NT) in obese subjects who were losing weight. This was a double-blind, placebo-controlled clinical trial. Obese women ($n = 35$) with a body mass index (BMI) ≥ 30 kg/m², with no prior history of gallstones or cholecystectomy by ultrasound were first studied to ensure absence of stones or biliary sludge. The women were then assigned to a hypocaloric regimen [5.02 MJ (1200 kcal)/d] and to receive 1200 mg/d of ursodeoxycholic acid (UDCA), 11.3 g/d of (n-3) PUFA or a placebo for 6 wk. BMI, CSI and NT were recorded at baseline and at the end of the experimental period. BMI decreased $5.75 \pm 2.7\%$ /mo (range, 1.5-12.42%/mo) during the experiment. The CSI did not change in any of the groups. Cholesterol NT decreased significantly in the UDCA and placebo groups, but not in the (n-3) PUFA group. None of the women had developed gallstones at 6 wk. These results suggest that (n-3) PUFA maintain the CSI and NT in obese women during rapid weight loss, which probably results in the prevention of cholesterol gallstone formation.

ACIDOPHILUS

Louis Pasteur discovered pasteurization, the method of heating milk to kill harmful bacteria. Years later at the pasteurization institute, Elie Metchnikoff researched and discovered the health-promoting capabilities of lactobacillus bacteria when he observed that people who ate yogurt tended to live longer.

More than 400 different kinds of bacteria live in our gastrointestinal tract. The body depends on beneficial bacteria to

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manufacture B vitamins as well as to produce lactase and other antibacterial substances.

60 to 70 MILLION AMERICANS SUFFER FROM DIGESTIVE DISEASES

(According to the National Digestive Disease information clearinghouse in Bethesda, MD.)

Commercial food processing procedures often destroy viable beneficial organisms, making it difficult for the body to maintain good intestinal flora. Even the majority of yogurt products no longer contain a viable acidophilus culture. Preservatives, additives, high-fat diets, alcohol, birth control pills, and stress can all result in poor intestinal flora. Antibiotic drugs are especially damaging to intestinal flora and kill all kinds of bacteria, both good and bad. The effects of antibiotic use on intestinal flora can last for weeks even after the drug is discontinued; often leading to yeast overgrowth, chronic infections, poor digestion, fatigue or allergies.*

Acidophilus supplements can reintroduce beneficial bacteria into the system. Important benefits of acidophilus supplementation can include:

1. Keeping constipation and diarrhea under control.
2. Counteracting lactose intolerance by its association with lactase.
3. Reduction of bad breath.
4. Reduction of internal gas.
5. Cholesterol control by promoting normal absorption of dietary fats.
6. Suppression of candida yeast.
7. Suppression of a number of intestinal disorders.
8. Prevention of intestinal contamination from infectious organisms common in some foreign countries.

Sources:

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